

### **REMARKS**

The above amendments to the above-captioned application along with the following remarks are being submitted as a full and complete response to the Official Action dated September 22, 2006. In view of the above amendments and the following remarks, the Examiner is respectfully requested to give due reconsideration to this application, to indicate the allowability of the claims, and to pass this case to issue.

#### **Status of the Claims**

Claims 1-9 are under consideration in this application. Claim 1-6 are being amended, as set forth in the above marked-up presentation of the claim amendments, in order to more particularly define and distinctly claim Applicants' invention. New claims 7-9 are being added.

The claims are being amended to correct formal errors and/or to better recite or describe the features of the present invention as claimed. All the amendments to the claims are supported by the specification, especially Fig. 5. Applicants hereby submit that no new matter is being introduced into the application through the submission of this response.

#### **Formality Rejection**

Claims 1-6 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite. As indicated, the claims are being amended as required by the Examiner. Accordingly, the withdrawal of the outstanding informality rejection is in order, and is therefore respectfully solicited.

#### **Prior Art Rejection**

Claims 1-6 were rejected under 35 U.S.C. §102(e) as being anticipated by US Pat. No. 6,862,710 to Marchisio et al. (hereinafter "Marchisio"), and claims 3-6 were rejected under 35 U.S.C. §103 (a) as being unpatentable over Marchisio in view of US Pub. No. 2001/0029455 of Chin et al. (hereinafter "Chin"). These rejections have been carefully considered, but are most respectfully traversed.

The document search system for the retrieval of documents related to a search key (for example, the embodiment depicted in Fig. 1), as now recited in claim 1, comprises: a database 40 in which terms (e.g., "tank", "ammonia," "artillery"), corresponding meanings (e.g., "container" or "armored vehicle"), relevance between the meanings (e.g., Fig. 2B), and

relevance between the terms with respect to each corresponding meaning are stored (e.g. Fig. 2C); a search key input unit 201 for entering by a user a first term ("tank") a search key; a meaning-relation network presenting unit 203 by which a plurality of different meanings (e.g., "container," "armored vehicle") of said search key and a second term (e.g., "ammonia," "artillery") related to each of said meanings (e.g., "container", "armored vehicle") of said search key are extracted from the database 40 and presented in a form of a network (e.g., Fig. 5); a meaning selecting means 2031 for selecting by the user at least one meaning of the first term (e.g., "container") in the network (Fig. 5) presented by the meaning-relation network presenting unit 203; a search unit 302 conducting a document search using said search key; a meaning determination unit 303 for determining a meaning of the search key used in a searched document by the search unit 302, by referring to the database 40; and a filtering unit 304 selecting a document from a set of searched documents as determined by the meaning determination unit 303 in which said search key ("tank") is used with said at least one meaning (e.g., "container") selected by the meaning selecting means (e.g., associated with "ammonia," and "fuel" in Fig. 6).

As recited in claim 2, said search unit 302 generates a search key (e.g., "ammonia," or "artillery") based on a selected meaning (e.g., "container") selected by the meaning selecting means 2031, and conducts a search using the generated search key (p. 9, last paragraph).

As recited in claims 7-9 and depicted in Fig. 5, the first term and each of said different meanings are paired and displayed side by side as one first node (e.g., tank/tanku (i.e., "container" in English), tank/sensha (i.e., "armored vehicle" in English) ) in the network, and said second term and a meaning of the second term (e.g., fuel/nenryo (i.e., "fuel" in English)) are paired and displayed side by side as said second node linked to said first node via a line in the network.

The present invention adds a meaning filing feature to the prior art search engine with a keyword search function such that a user can select a meaning of interest from the meaning-relation network to narrow down the number of documents. These documents not only contain the key word, but the key word was used with the meaning of interest therein.

Applicants respectfully contend that none of the cited references teaches or suggests such (1) "a meaning-relation network presenting unit 203 by which a meaning (e.g., "container" or "armored vehicle") of said search key as entered by the user and a second term (e.g., "ammonia," or "artillery") related to said meaning (e.g., "container" or "armored vehicle") of said search key are extracted from the database 40 and presented in a form of a

network (e.g., Fig. 5)", (2) "a meaning selecting means 2031 for selecting by the user at least one meaning of the first term (e.g., "container") in the network", or (3) "a filtering unit 304 selecting a document from a set of searched documents as determined by the meaning determination unit 303 in which said search key ("tank") is used with said at least one meaning (e.g., "container") selected by the meaning selecting means (e.g., associated with "ammonia," and "fuel" in Fig. 6)" according to the present invention.

In contrast, Marchisio conceptually and broadly (rather than "via word meaning" and specifically) relates 2<sup>nd</sup> terms (e.g., "theatre," "comedy", col. 15, line 30) to a 1<sup>st</sup> term (e.g., "Shakespeare", col. 15, line 31) entered as a query so as to generate a pseudo-hyper link (soft hyper link) and thereby facilitate inter-document navigations. Marchisio's second term "theatre" or "comedy" is NOT specifically related to the meaning of the first term "Shakespeare": an English poet and dramatist considered one of the greatest English writers (1564-1616). In addition, Marchisio involves only different associations of the initial word to other words, which are much boarder than different meanings of the same word. As such, Marchisio's "concept space" (col. 11, line 15) is much larger than the meaning-relation network of the present invention. Marchisio's tag specification 122 merely involves filtering using a tag such as date or participant in a conversation, rather than a meaning interested by the user as in the present invention.

In addition, Marchisio only allows the user to enter an initial word and allows the user to move to a document that is considered most related to the initial word clicked on by the user (Abstract), but no further involvement as "selecting by the user at least one **meaning** (e.g., "container") in the network" of the present invention. In particular, Marchisio teaches away from the invention by pointing out that a user can NOT associate and then select a meaning of interest by the prior art automated techniques (*"Unfortunately, experience with automated techniques has shown that the user cannot readily associate transform axes with semantic meaning"* col. 6, lines 20-23). It is well established that a rejection based on cited references having contradictory principles or principles that teach away from the invention is improper.

On the other hand, in accordance with the invention, "meanings" of a term/word and other terms/words related to the "meanings" are mapped into a network format which is easy for the user to pick at least one meaning of interest to filter documents of interest. Only those documents with the selected meaning of the term/word by the user will be displayed. Marchisio simply does not display any first or second node and the network as recited in

claims 7-9 of the invention.

Chin only translates text by using translation services available on a network thereby supporting a cross-lingual search. Chin fails to compensate for Marchisio's deficiencies as discussed above.

Applicants contend that neither Marchisio, Chin, nor their combination teaches or suggests each and every feature of the present invention as recited in independent claim 1. As such, the present invention as now claimed is distinguishable and thereby allowable over the rejections raised in the Office Action. The withdrawal of the outstanding prior art rejections is in order, and is respectfully solicited.

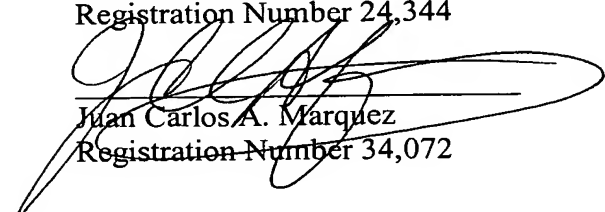
### Conclusion

In view of all the above, clear and distinct differences as discussed exist between the present invention and the prior art references upon which the rejections in the Office Action rely, Applicants respectfully contend that the prior art references cannot anticipate the present invention or render the present invention obvious. Rather, the present invention as a whole is distinguishable, and thereby allowable over the prior art.

Favorable reconsideration of this application is respectfully solicited. Should there be any outstanding issues requiring discussion that would further the prosecution and allowance of the above-captioned application, the Examiner is invited to contact the Applicants' undersigned representative at the address and telephone number indicated below.

Respectfully submitted,

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